AMENDMENTS TO THE SPECIFICATION

Please replace paragraph **[0045]** with the following revised paragraph:

[0045] Were it determined, at step [[320]] 322, that the nucleation layer was not of desired thickness, then the process proceeds to step 308 and repeats steps 308, 310, 312, 314, 316, 318, 320 and 322, until nucleation layer 60 obtains the desired thickness. In this manner, nucleation of substrate 16 is achieved employing multiple steps, namely, a pulse nucleation technique. The nucleating gases are pulsed into processing chamber 12 for a few seconds and quickly removed by the rapid depressurization of processing chamber 12 or introduction of purge gases. This step lasts approximately 3 to 12 seconds. It is believed that the pulse nucleation technique reduces formation of a concentration boundary layer that results from outgassing when the surface is being nucleated. Specifically, it is believed that a diffusive flux of reactants employed to nucleate the surface may substantially reduce the aforementioned outgassing. The deleterious impact of the concentration boundary layer is found to be reduced with the present process. In the present process, the concentration boundary layer is allowed to form as large a size as possible while still maintaining suitable diffusive flux of reactants employed to nucleate the surface underlying the concentration boundary layer. Thereafter, all of the process gases, reaction by-products and the material that forms the concentration boundary layer are removed from processing chamber 12 by rapidly depressurizing the same or introducing purge gases therein. This process is repeated until nucleation layer 60 reaches a suitable thickness.